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L11	I5 and incisor	15	L11
L10	L8 and (mouse or mice or rat or rodent)	9	L10
L9	L8 and (mouse or mice or rat\$ or rodent\$)	49	L9
L8	alveolar bone\$ same (window\$ or hole\$ or opening\$)	118	L8
L7	L6 and (rat or mouse or rodent)	10	L7
L6	alveolar bone same (window or hole or open\$)	143	L6
L5	L4 and (rat or rodent or mouse)	128	L5
L4	L3 or I2	515	L4
L3	alveolar bone and (hole or open\$)	512	L3
L2	window and alveolar bone	35	L2
L1	window near5 alveolar bone	1	L1

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=> s alveolar bone?

L1 4517 ALVEOLAR BONE?

=> s l1 and (window? or slot? or hole? or opening?)
L2 59 L1 AND (WINDOW? OR SLOT? OR HOLE? OR OPENING?)

=> s l2 and incisor?
L3 12 L2 AND INCISOR?

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4 7 DUP REM L3 (5 DUPLICATES REMOVED)

=> d bib abs 1-
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L4 ANSWER 1 OF 7 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
AN 2001169618 EMBASE

TI Effects of dexamethasone on tooth eruption in rats: Differences in ***incisor*** and molar eruption.

AU Wise G.E.; Grier IV R.L.; Lumpkin S.J.; Zhang Q.

CS Dr. G.E. Wise, Department of Veterinary Anatomy, School of Veterinary Medicine, Louisiana State University, Baton Rouge, LA 70803-8408, United States. gwise@mail.vetmed.lsu.edu

SO Clinical Anatomy, (2001) 14/3 (204-209).

Refs: 32

ISSN: 0897-3806 CODEN: CLANE8

CY United States

DT Journal; Article

FS 001 Anatomy, Anthropology, Embryology and Histology

011 Otorhinolaryngology

021 Developmental Biology and Teratology

LA English

SL English

AB A requirement for tooth eruption is the resorption of ***alveolar*** ***bone***. Because bone resorption is stimulated by dexamethasone both in vivo and in vitro, dexamethasone 21-phosphate, a soluble form of dexamethasone, was injected into rats to determine its effect on tooth eruption. Such dexamethasone injections accelerate the time of intra-osseous eruption in rat ***incisors*** but do not accelerate the eruption time of rat molars when injected into rats. The injections of dexamethasone 21-phosphate also accelerate the time of eyelid ***opening*** in the postnatal rats, as well as retarding growth, as measured by body weight. These effects of dexamethasone 21-phosphate parallel the effects of epidermal growth factor injections, including the absence of an effect on molar eruption. This suggests that the molecular signals for the initiation of tooth eruption (i.e., onset of bone resorption) differ between rat ***incisors*** and molars. Given that rat ***incisors*** are teeth of continuous eruption whereas rat molars are teeth of limited eruption, as are human teeth, care must be taken in extrapolating results derived from rat ***incisors*** to human dentition. In vitro, dexamethasone has no effect on the gene expression of either osteoprotegerin or epidermal growth factor in dental follicle cells derived from molars. Because osteoprotegerin expression during normal tooth eruption is transiently inhibited early postnatally in the molar dental follicle to allow osteoclast formation, the absence of inhibition of its expression by dexamethasone could explain why dexamethasone does not accelerate eruption in molars. .COPYRG. 2001 Wiley-Liss, Inc.

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:434295 CAPLUS

TI In vivo model for experimental manipulation of calcified tissues and associated soft tissues

IN Nanci, Antonio; Vu, Duy-dat; Daniel, Nachaat G.

PA Universite De Montreal, Can.

SO PCT Int. Appl.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND DATE	APPLICATION NO.	DATE
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PI WO 2000036909	A2 20000629	WO 1999-CA1207	19991217
WO 2000036909	A3 20000914		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-112996P P 19981218

AB The present invention relates to the use of a rodent's mandibular ***incisor*** as an experimental model for the local and selective targeting of the odontogenic organ and its associated periodontal tissues. A surgical technique was developed to create a '***window***' in the ***alveolar*** ***bone*** overlying the apex of the rodent ***incisor*** to allow direct diffusion of specific experimental agents. While direct deposition in the ***window*** is possible in some circumstances, an osmotic minipump is preferred to deliver the specific experimental agents in the ***window***.

L4 ANSWER 3 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN

DUPLICATE 1

AN 2001:65107 BIOSIS

DN PREV200100065107

TI A surgical technique for administering laser irradiation to rat
incisor dentin.

AU Ling, Patricia L.; Karim, Algernon C. (1)

CS (1) Department of Oral Biology, Faculty of Dentistry, University of
Manitoba, 780 Bannatyne Avenue, Winnipeg, MB, R3E 0W2 Canada

SO Anatomical Record, (December 1, 2000) Vol. 260, No. 4, pp. 359-365. print
ISSN: 0003-276X.

DT Article

LA English

SL English

AB With the advent of lasers in the field of dentistry, various methods have been used to expose dentin to laser irradiation. This was done indirectly through the ***alveolar*** ***bone***, as well as directly on dentin wafers and on extracted human teeth. However, dentin is a vital tissue and the only way to show the ramifications of laser irradiation is by directly exposing the dentin to this energy source under in vivo conditions. In the present study we describe a highly reproducible method for accomplishing this. Male Sprague Dawley rats were anesthetized and an incision was made at the junction of the attached palatal mucosa and the unattached buccal mucosa parallel to the maxillary bones on both sides. This procedure exposed the underlying bone where a 2 mm square ***window***, at a point 3 mm caudal and parallel to the gingival attachment, was cut out to the depth of the periodontal ligament. The site was flushed with a 0.9% sterile sodium chloride solution and gently dried with gauze. The beam of the laser was focused in the middle of the 2 mm square ***window*** and a pre-determined energy level and pulse duration (2 W 50 ms or 10 W 50 ms) were selected. The focal length guide was held at right angles to the dentin surface and in contact with the maxilla at all times. The energy densities of either 52.6 or 263.2 J/cm² were delivered to the 'root' dentin by a single pulse. The survival rate was 92%. The animals that died did so while under anesthesia and not after exposure to laser irradiation. The animals that survived tolerated the surgery and the laser irradiation very well, regaining (and eventually surpassing) their initial weight 3 days after the procedures were performed. The thickness of the dentin that was exposed to laser irradiation was not completely penetrated by the energy levels used. At both energy levels some dentinal tubules appeared blocked and evidence of melted dentin was apparent. However, at the higher energy level two distinct zones were observed in the funnel-shaped lesion. In the inner zone distinct dentinal tubules were not readily visible, while in the outer zone the tubules were opened and completely free of debris. This technique is highly reproducible and yields consistent results with little or no stress to the animals. Although the energy levels used did not penetrate the entire thickness of the dentin, the depth of penetration of the laser beam appears to be related to the energy level used and the thickness of the dentin layer present.

L4 ANSWER 4 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS

INC. on STN

DUPLICATE 2

AN 1999:140913 BIOSIS

DN PREV199900140913

TI In vivo model for the experimental manipulation of calcified tissues: A surgical approach for accessing the odontogenic organ and associated tissues of the rat ***incisor***.

AU Vu, D.-D.; Daniel, N. G.; Nanci, A. (1)

CS (1) Lab. Study Calcified Tissues Biomaterials, Faculty Dentistry,
Universite de Montreal, Montreal, PQ H3C 3J7 Canada

SO Journal of Histochemistry and Cytochemistry, (March, 1999) Vol. 47, No. 3,
pp. 323-336.
ISSN: 0022-1554.

DT Article

LA English

AB The tooth organ is extensively used in developmental biology to investigate organogenesis and cell differentiation. It also represents an advantageous system for the study of the various cellular and extracellular matrix events that regulate the formation of both collagenous and noncollagenous calcified tissues. This article describes an in vivo surgical approach to access and experimentally manipulate the tooth organ and supporting tissues of the rat ***incisor***. By use of a dental drill, a '***window***' was created through the ***alveolar*** ***bone*** on the buccal aspect of the hemimandible at the apical end of the ***incisor***. It is at this site that epithelial and mesenchymal precursors are situated and undergo cellular differentiation to give rise to cells of the odontogenic organ. Active bone remodeling is also observed in this area to accommodate posterior growth of the tooth. An osmotic minipump connected to the bony ***window*** through an outlet catheter was used for controlled and continuous administration of experimental agents over a predetermined period of time. To validate the model, vinblastine sulfate, fetuin-gold, and dinitrophenylated albumin were thus infused. The animals were then sacrificed and the hemimandibles were processed for histological and immunocytochemical analyses. The effects of the drug and the presence of tracers were restricted to the treated hemimandible and were found in the enamel organ and pulp, as well as in the tooth supporting tissues. Cellular changes typically associated with the administration of vinblastine were obtained, and tracers were localized both in the extracellular milieu and within the endosomal/lysosomal elements of cells.

These results suggest that this new surgical approach could serve as an advantageous in vivo model in which various chemical agents, therapeutic drugs, molecular probes are locally administered to study the molecular events that regulate calcified tissue formation.

L4 ANSWER 5 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS

INC. on STN

DUPLICATE 3

AN 1995:272424 BIOSIS

DN PREV199598286724

TI Brief Communication: Tigarans (Point Hope, Alaska) Tooth Drilling.

AU Schwartz, Jeffrey H. (1); Brauer, Jaymie; Gordon-Larsen, Penny

CS (1) Dep. Anthropol., Univ. Pittsburgh, Pittsburgh, PA 15260 USA

SO American Journal of Physical Anthropology, (1995) Vol. 97, No. 1, pp.

77-82.

ISSN: 0002-9483.

DT Article

LA English

AB In a sample of 48 adult Tigarans (1300-1700 A.D.) from Point Hope, Alaska, 33 exhibited various degrees of periodontal disease, which, in 25, resulted in tooth loss (Schwartz, unpublished data). Although extreme examples of tooth wear were prevalent in the sample, carious infection was noted in only one individual, in whom the lower central ***incisors*** (I-1s) had been affected. In the left I-1, infection had spread through the root's apex into the ***alveolar*** ***bone***, causing an abscess. The buccal (labial) side of the root of this tooth, just below the crown, bears a shallow, relatively flat-bottomed depression, with a small perforation into, as well as a second ***hole*** that fully penetrates, the root canal. Both of these features appear to have been produced by an implement, and, as they are associated with a diseased tooth, and ritualistic tooth shaping or drilling of any sort was, and is, not practiced among Arctic groups, their purpose was probably therapeutic. As such, this specimen appears to represent a case of precontact New World Arctic dentistry.

L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1992:433628 CAPLUS

DN 117:33628

TI Histological evaluation of natural coral skeleton as a grafting material in miniature swine mandible

AU Ouhayoun, J. P.; Shabana, A. H. M.; Issahakian, S.; Patat, J. L.;

Guillemin, G.; Sawaf, M. H.; Forest, N.

CS Dep. Periodontol., Univ. Paris 7, Paris, F-75270, Fr.

SO Journal of Materials Science: Materials in Medicine (1992), 3(3), 222-8

CODEN: JSMML; ISSN: 0957-4530

DT Journal

LA English

AB Natural coral skeleton (NCS) has recently been proposed as a bone graft substitute that enhances bone formation. The present paper describes the effects of implanting NCS in bone cavities prepd. in the mandibles of miniature pig, and compares these with the effects of two alloplastic materials; a tricalcium phosphate (TCP) and a porous hydroxyapatite (PHA). On 11 pigs, 5 times 5 mm ***windows*** were created through ***alveolar*** ***bone*** of the four mandibular ***incisors***. Three cavities were filled with the various materials and the fourth was left unfilled. The animals were slaughtered at 0, 1, 2, 4, 12, 26 and 52 wk post-operatively and the tissues were examd. histol. Healing completed at 26 wk for NCS and TCP, and at 52 wk for PHA. NCS granules provided surface for cell attachment and deposition of a distinguishable org. matrix two weeks post-operatively. This matrix developed to bone after four weeks. The granules gradually resorbed and were replaced by bone at 52 wk. The excellent properties of NCS, biocompatibility, porosity and osteogenic effect make the authors suggest that it might be a suitable replacement for bone grafting.

L4 ANSWER 7 OF 7 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS

INC. on STN

DUPLICATE 4

AN 1985:276761 BIOSIS

DN BA79:56757

TI IN-VIVO EXPERIMENTATION ON RAT ***INCISOR*** ENAMEL ORGANS THROUGH A

SURGICAL ***WINDOW***

AU MCKEE M D; WARSHAWSKY H

CS DEP. ANAT., MCGILL UNIV., MONTREAL, QUE. H3A 2B2, CAN.

SO ANAT REC, (1984) 210 (4), 693-706.

CODEN: ANREAK. ISSN: 0003-276X.

FS BA; OLD

LA English

AB Experimental agents administered systemically are costly and often toxic to animals. An in vivo technique has been developed whereby a surgical ***window*** in the ***alveolar*** ***bone*** allows selected areas of the rat ***incisor*** enamel organ and underlying enamel to be exposed to various drugs, radiolabeled molecules and MMV markers. Sherman rats weighting 100 g were anesthetized and the inferior surface of each hemimandible was surgically exposed. A slow-speed dental hand drill was used to drill a small ***hole*** through the ***alveolar*** ***bone*** overlying the secretion or maturation zones of the enamel organ. The wound was closed and during recovery the mechanical trauma to the underlying tissue moved away from the ***hole*** due to the continuous eruption of the tooth. Two to 5 days later the ***hole*** was reexposed and microinjections of 3H-proline, 125I-salmon calcitonin, vinblastine sulfate and normal saline (as control) were administered

through the ***hole*** with a micromanipulator and a microliter syringe. Radioautographic detection of 3H-proline incorporation in secretory ameloblasts and enamel at 10 min, 30 min, 1 h, 4 h, 1 day and 2 days after microinjection was identical to that obtained previously by systemic injection. Two hours after microinjection of vinblastine sulfate the cellular response was again identical to that following systemic injection; 125I-salmon calcitonin (MW .apprx. 3,600 D [dalton]) was used as a MW marker and was seen to diffuse into the enamel of the maturation zone at 10 min after microinjection. The feasibility of this new technique for experimentation on rat ***incisor*** enamel organs was demonstrated.

=> d his

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L1 4517 S ALVEOLAR BONE?
L2 59 S L1 AND (WINDOW? OR SLOT? OR HOLE? OR OPENING?).
L3 12 S L2 AND INCISOR?
L4 7 DUP REM L3 (5 DUPLICATES REMOVED)

=> dup rem l2

PROCESSING COMPLETED FOR L2

L5 47 DUP REM L2 (12 DUPLICATES REMOVED)

=> s l5 not l4

L6 40 L5 NOT L4

=> d bib abs 1-

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L6 ANSWER 1 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 2000:286214 BIOSIS

DN PREV200000286214

TI Apparatus and method for distraction osteogenesis of small

alveolar ***bone***

AU Chin, Martin (1)

CS (1) 20 Hampton Ct., Alameda, CA USA

PI US 5976142 November 02, 1999

SO Official Gazette of the United States Patent and Trademark Office Patents, (Nov. 2, 1999) Vol. 1228, No. 1, pp. No pagination. e-file.
ISSN: 0098-1133.

DT Patent

LA English

AB An apparatus and method for osteogenesis distraction of small ***alveolar*** ***bone*** is provided. The alveolar distraction osteogenesis device may be affixed to small and thin bone segments. An alveolar distraction osteogenesis device according to the first embodiment includes a submergible first and second members along with a threaded rod. An alveolar distraction osteogenesis device according to a second embodiment includes an osseointegrated cylindrical member along with an adaptable threaded rod which may be used with a stabilizing plate. The alveolar distraction osteogenesis device is activated using a hexagonal drive wrench or a ***slot*** screw driver. In order to allow for bone growth and/or distraction, a constant activation rate between bone segments is applied by a torque.

L6 ANSWER 2 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1999:158150 BIOSIS

DN PREV199900158150

TI Sinus floor augmentation with simultaneous implant placement in the severely atrophic maxilla.

AU Peleg, Michael (1); Mazor, Ziv; Chausu, Gavriel; Garg, Arun K.

CS (1) 47 Yehuda Hanasi, Tel Aviv Israel

SO Journal of Periodontology, (Dec., 1998) Vol. 69, No. 12, pp. 1397-1403.

ISSN: 0022-3492.

DT Article

LA English

AB DENTAL IMPLANT PLACEMENT ASSOCIATED with augmentation of the sinus floor

in the severely atrophic maxilla can be performed in 1- or 2-surgical stages, depending on the height of the residual ***alveolar*** ***bone***. A minimum of 4 to 5 mm of residual ***alveolar*** ***bone*** height is recommended for a 1-stage surgical procedure. The present study describes a 1-stage procedure in cases where the residual ***alveolar*** ***bone*** height in the posterior maxilla was 1 to 2 mm. A total of 55 hydroxyapatite-coated dental implants were inserted in 20 grafted sinuses of 20 patients. No case presented any difficulty in achieving initial stabilization and parallelism. No perforation of the sinus membrane or clinical complications of the sinuses were evident. Prior to exposure, radiographic evaluation revealed bone consolidation and a close bone-implant relation. At second-stage surgery, there was no clinical evidence of crestal bone loss around the implants. All implants were clinically osseointegrated. All patients received fixed implant-supported prosthesis. The mean follow-up was 26.4 months (range 15 to 39 months). There was no implant loss after loading. The following surgical modifications are essential: a wide lateral ***window***, ***opening***, the use of a bone mill to homogenize the bone graft, meticulous condensation, and clinical measurements to ensure implant

parallelism.

L6 ANSWER 3 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1997:177478 BIOSIS

DN PREV199799469191

TI Bisphosphonate modulates proliferation and differentiation of rat periodontal ligament cells during wound healing.

AU Lekic, P. (1); Rubbino, I.; Krasnoshtein, F.; Cheifetz, S.; McCulloch, C. A. G.; Tenenbaum, H.

CS (1) Fac. Dentistry, Room 344E, Univ. Manitoba, 780 Bannatyne Ave., Winnipeg, Manitoba R3E 0W2 Canada

SO Anatomical Record, (1997) Vol. 247, No. 3, pp. 329-340.

ISSN: 0003-276X.

DT Article

LA English

AB Background: Periodontal ligament (PL) width is precisely maintained throughout the lifetime of adult mammals, but the biological mechanisms that regulate the spatial locations of the cell populations for bone, cementum, and PL are unknown. Methods: As bisphosphonates induce ankylosis

in mouse molar teeth, we used ethane-1-hydroxy-1, 1-bisphosphonate-(HEBP, Etidronate; Didronel) in combination with a periodontal ***window*** wound model to identify those cell populations involved in the regulation of PL width during the reformation of cellular domains after wounding. Four groups of Wistar rats were wounded by drilling through the ***alveolar*** ***bone*** and extirpation of the PL. Rats were administered HEBP for 1 week and then sacrificed or allowed to recover for an additional week prior to sacrifice. Control rats were sacrificed after 1 or 2 weeks. One hour prior to sacrifice, rats were injected with 3H-thymidine to label proliferating cells. Tissue sections were immunohistochemically stained for osteopontin (OPN) or bone sialoprotein (BSP) or were prepared for in situ hybridization (BSP) to identify extra- and intracellular expression of these non-collagenous bone proteins associated with periodontal healing. Results: HEBP treatment for 1 week induced a twofold increase in the thickness of the ***alveolar*** ***bone*** matrix in which weak immunostaining for OPN and BSP mRNA signal was seen. During the recovery phase the increased bone width was reduced but was still considerably thicker than in control (P it 0.001). OPN staining as well as the BSP mRNA signal were much more intense than at 1 week. HEBP induced a gt 40% reduction of PL width which returned to normal dimensions following the recovery phase. HEBP also modulated PL cell proliferation and differentiation: PL cell counts and labelling indices were reduced fivefold after 1 week of HEBP but returned to control values after the recovery phase. In controls, PL cells did not express OPN and BSP, but after HEBP treatment, and particularly after the recovery phase, PL cells expressed both of these markers intensely. In contrast, gingival and pulp connective tissues that were contiguous with the PL were not stained for OPN and did not express BSP mRNA after HEBP treatment. Conclusions: While wounding induced transient increases of proliferation which were followed by repopulation of the extirpated tissue, the effects of HEBP on cell differentiation were independent of wounding. HEBP modulates the differentiation of PL cells and recruits cells that contribute to ***alveolar*** ***bone*** formation and loss of PL width homeostasis. Conceivably, bisphosphonates could be used therapeutically to selectively alter the differentiation of PL cells and promote the formation of ***alveolar*** ***bone*** and cementum.

L6 ANSWER 4 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1996:481776 BIOSIS

DN PREV199699197032

TI Relationship of cellular proliferation to expression of osteopontin and bone sialoprotein in regenerating rat periodontium.

AU Lekic, Predrag (1); Sodek, Jaro; McCulloch, Christopher A. G.

CS (1) MRC Group Periodontal Physiol., Fac. Dentistry, Univ. Toronto, 124 Edward St., Room 428, Toronto, ON M5G 1G6 Canada

SO Cell & Tissue Research, (1996) Vol. 285, No. 3, pp. 491-500.

ISSN: 0302-766X.

DT Article

LA English

AB Cellular repopulation was studied in a model in which adjacent mineralizing and soft connective tissue matrices are regenerated. ***Window*** wounds were created through ***alveolar*** ***bone***, with either preservation or removal of periodontal ligament, in 30 male Wistar rats. Three animals per time period were killed on days 1, 3, 7, 14, and 28 after surgery for each wound type. Cellular proliferation in ***alveolar*** ***bone*** and periodontal ligament was assessed by 3H-thymidine labelling 1 h before death, followed by radioautographic analysis. Cellular differentiation was determined by the temporal expression of the bone-related markers osteopontin and bone sialoprotein, using immunohistochemical methods. In regenerating periodontium, osteopontin was expressed earlier than bone sialoprotein, which was restricted to ***alveolar*** ***bone***. After wounding, transient expression of osteopontin was detected in the periodontal ligament at days 1 and 3. In general, wounding induced fivefold higher proliferation and clonal growth of periodontal ligament cells compared to the unwounded (control) side. Combined immunostaining and radioautography demonstrated colocalization of osteopontin in sites with high numbers of labelled cells in both nascent periodontal ligament and regenerating ***alveolar*** ***bone*** at days 3 and 7. In contrast, bone sialoprotein, which appeared in regenerating ***alveolar*** ***bone*** on days 14-28 after wounding, was expressed much later than the peak of cellular

proliferation. We conclude that (1) the intact periodontal ligament influences cell proliferation and osteopontin expression; (2) osteopontin is an early marker of periodontal tissue regeneration that is temporally and spatially associated with intensive cell proliferation and migration in osteogenic and periodontal ligament cell populations; and (3) bone sialoprotein is expressed after proliferation at sites of mineralizing bone formation.

L6 ANSWER 5 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN
AN 1996:71962 BIOSIS
DN PREV199698644097
TI Osteopontin and bone sialoprotein expression in regenerating rat periodontal ligament and ***alveolar*** ***bone***
AU Lekic, Predrag (1); Sodek, Jaro; McCulloch, Christopher A. G.
CS (1) 124 Edward Street, Room 428, Toronto, ON M5G 1G6 Canada
SO Anatomical Record, (1996) Vol. 244, No. 1, pp. 50-58.
ISSN: 0003-276X.

DT Article
LA English

AB Background: Osteopontin (OPN) and bone sialoprotein (BSP) are differentially expressed over time in bone formation and remodelling. We have examined the expression of these proteins as phenotypic markers in studies of periodontal ligament (PL) and ***alveolar*** ***bone*** (AB) regeneration. Methods: ***Window*** wounds (0.6 mm in diameter through ***alveolar*** ***bone***) with either preservation or extirpation of PL were prepared under general anaesthesia in 30 Wistar male rats. Animals were killed on days 1, 3, 7, 14, and 28 after surgery, and OPN and BSP were detected with mouse monoclonal antirat antibodies. Results: In regenerating ***alveolar*** ***bone***, OPN was first detected on day 3, prior to the expression of BSP. However, only OPN could be detected in the PL where it localized to the border with the AB. Compared to wounds with PL extirpation, wounds with preservation of PL exhibited BSP staining within the AB compartment of the wound site in a significantly shorter period of time (day 7) and exhibited intense OPN and BSP staining by day 28. Conclusions: These studies show that early OPN and BSP expression and bone regeneration are enhanced by preservation of the PL and that during wound healing the PL contains cells that transiently express some osteoblastic protein markers but not mineralization.

L6 ANSWER 6 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN
AN 1995:203612 BIOSIS
DN PREV199598217912

TI The use of fractal analysis to reveal remodelling in human ***alveolar*** ***bone*** following the placement of dental implants.

AU Wilding, R. J. C. (1); Stabbert, J. C. G.; Kathree, H.; Owen, C. P.; Crombie, K.; Delpoit, P.
CS (1) Dep. Oral Biol., Univ. Western Cape, P. Bag X08, Mitchells Plain 7785 South Africa
SO Archives of Oral Biology, (1995) Vol. 40, No. 1, pp. 61-72.
ISSN: 0003-9969.

DT Article
LA English

AB In order to confirm the presence of adequate bone support for implants it is necessary to examine the surrounding bone at intervals. While this may be attempted by looking for changes in serial radiographs, such comparisons are inaccurate unless standardized procedures are followed which allow subtraction of consecutive digital images. As image textures are less susceptible to magnification distortion, it was decided to examine the fractal dimensions of successive radiographs of bone after implant placement. All available panoramic radiographs for each of 18 patients who had received fixed implant-supported prostheses were digitized. A ***window*** of bone adjacent and distal to the most posterior implant was defined as the region of interest; the fractal dimension of the image was calculated. Linear regression was used to investigate whether there were any significant shifts in fractal dimension during the recall period after implantation. A significant increase in fractal dimension was found during the period up to 2 yr after implantation (p lt 0.001). The most pronounced increase was in the region of bone around the neck of the implant. An increase in orientation of the image in a direction oblique to the implant was also found during the same period. These changes are consistent with models derived from finite-element analysis that predict the relation between trabecular architecture and strain. One subject's radiographs had a significant negative regression slope, which further monitoring may reveal was an early sign of implant failure. The satisfactory remodelling of bone in response to implant placement may be monitored using a texture analysis of routine orthopantomograms.

L6 ANSWER 7 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN
AN 1992:474152 BIOSIS
DN BA94:105527

TI INFLUENCE OF TEETH ALVEOLI AND PERIODONTAL LIGAMENTS ON TORSIONAL RIGIDITY IN HUMAN MANDIBLES.

AU DAEGLING D J; RAVOSA M J; JOHNSON K R; HYLANDER W L
CS DEP. ANTHROPOL., YALE UNIV., NEW HAVEN, CONN. 06520, USA.
SO AM J PHYS ANTHROPOL., (1992) 89 (1), 59-72.
CODEN: AJPN9A. ISSN: 0002-9483.

FS BA; OLD

LA English

AB We investigated the influence of teeth, periodontal ligaments, and alveoli on the structural integrity of human mandibles loaded in torsion. Surface bone strain was recorded from the mandibular corpus below the first molar on each of four specimens. These specimens were loaded by an external force that caused primarily torsion about the long axis of the corpus, and bone strain was recorded under the following conditions: 1) all supporting structures intact, 2) all supporting structures intact and the M1 loaded by a simulated bite force, 3) M1 removed and 4) ***alveolar*** ***bone*** of the M1 removed. For comparative purposes, experiments were also designed to investigate the effects of intermittent ***holes*** on the torsional rigidity of a baboon femur. This permitted comparison of the mechanical behavior of the mandibles with that of a more homogeneous bony member. These experiments suggest that the presence of teeth within alveoli has a measurable role in the maintenance of torsional rigidity. The condition of the periodontal ligament also appears to influence these stress-bearing capabilities. Moreover, the ***alveolar*** ***bone*** supporting the teeth also provides structural support for countering torsional loads. For the specific case of corpus twisting, the mandible does not behave as a member with open or closed sections as predicted by theoretical models. The observed magnitudes of bone strain, however, conform more closely to the predictions generated by a closed-section model.

L6 ANSWER 8 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN

AN 1992:209040 BIOSIS

DN BA93:109265

TI GUIDED TISSUE REGENERATION IN SURGICALLY-PRODUCED FURCATION DEFECTS AN EXPERIMENTAL STUDY IN THE BEAGLE DOG.

AU PONTORIERO R; NYMAN S; ERICSSON I; LINDHE J
CS DEP. PERIODONTOLOGY, FACULTY ODONTOLOGY, BOX 33070, S-400 33 GÖTEBORG, SWEDEN.

SO J CLIN PERIODONTOL., (1992) 19 (3), 159-163.

CODEN: JCPEDZ. ISSN: 0303-6979.

FS BA; OLD

LA English

AB The aim of the investigation was to evaluate the potential for new attachment formation at various degree III furcation involvements in the beagle dog. 3 differently shaped furcation defects were prepared; one small and one large key- ***hole*** defect, and one furcation defect which was part of "circumferential" loss of attachment and bone. 15 beagle dogs were used in the experiments. The furcation defects were surgically created at mandibular premolars in the right and left side of the jaw. Test teeth were subsequently treated according to the GTR principle, while control teeth were treated without the application of membranes. The result from the histological examination of biopsy specimens revealed that GTR treatment may result in complete new attachment at surgically produced "through and through" furcation involvements in dogs. The study, however, also revealed that the size of the furcation defect as well as the shape of the surrounding ***alveolar*** ***bone*** were factors that determined the outcome of this kind of treatment. The treatment failures were consistently associated with flap recession during healing which resulted in the exposure of the furcation defect.

L6 ANSWER 9 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN

AN 1992:55867 BIOSIS

DN BA93:35842

TI HISTOLOGIC EVALUATION OF COMBINING TETRACYCLINE AND ALLOGENEIC

FREEZE-DRIED BONE ON BONE REGENERATION IN EXPERIMENTAL DEFECTS IN BABOONS.

AU DRURY G I; YUKNA R A
CS 1100 PACIFIC COAST HIGHWAY, SUITE F, HERMOSA BEACH, CALIF. 90254.

SO J PERIODONTOL., (1991) 62 (11), 652-658.

CODEN: JOPRAJ. ISSN: 0022-3492.

FS BA; OLD

LA English

AB Tetracyclines (TTC) have been used both systemically and locally during periodontal bone grafting procedures, but previous work regarding the effect of TTC on new bone formation has been contradictory. The purpose of this study was to determine if the use of locally applied TTC in combination with freeze-dried bone allografts (FDBA) would enhance bone regeneration in an experimental ***alveolar*** ***bone*** osseous defect grafting system. Pre-weighed freeze-dried bone allograft particles (300-500 .mu. diameter) were placed in nylon mesh chambers (250 .mu. pore size) and rehydrated with either 10 .mu. g/ml aqueous TTC or sterile distilled water. Empty chambers were used as further controls. The chambers were placed in the posterior mandible of baboons in surgically created ***windows***. After 3 and 5 weeks, the chambers were retrieved, processed histologically, and analyzed histometrically for new bone formation. The TTC-rehydrated FDBA demonstrated much greater (> 5 times) new bone formation than the water rehydrated FDBA. These results strongly suggest that locally-applied TTC in combination with FDBA enhances new bone formation in experimental ***alveolar*** ***bone*** defects.

L6 ANSWER 10 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
INC. on STN

AN 1991:224844 BIOSIS
 DN BA91:116304
 TI PERIODONTIUM RESPONSE TO A ROOT CANAL CONDENSING DEVICE
 ENDOTEC.
 AU CASTELLI W A; CAFFESE R G; ODONT; PAMEIJER C H; DIAZ-PEREZ R;
 FARQUHAR J
 CS DEP. ANATOMY CELL BIOL., UNIV. MICHIGAN SCH. MED., ANN ARBOR,
 MICH. 48109.
 SO ORAL SURG ORAL MED ORAL PATHOL, (1991) 71 (3), 333-337.
 CODEN: OSOMAE. ISSN: 0030-4220.
 FS BA; OLD
 LA English
 AB Two Macaca (fascicularis) monkeys were used to study the effect of two warm
 endodontic condensation techniques (Endotec and vertical condensation
 method) on periodontal tissues. The specimens were histologically
 evaluated at 3 and 32 days after the endodontic treatments were completed.
 In this study the periodontium was divided into coronal middle, and apical
 thirds. Results indicated that there was no heat-related damage to
 periodontal tissues from either of the two methods employed. However, some
 Endotec specimens generated small, reactive inflammatory infiltrates that
 were restricted to the root canal ***opening*** or adjacent
 periodontal membrane. Similarly, some vertical condensation specimens
 developed periapical inflammatory processes as well, but they were more
 extensive and comprised the ***alveolar*** ***bone*** and marrow
 spaces.

L6 ANSWER 11 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
 INC. on STN
 AN 1990:86977 BIOSIS
 DN BA89:46328
 TI ORTHODONTIC SPACE CLOSURE OF THE EDENTULOUS MAXILLARY
 FIRST MOLAR AREA IN
 ADULTS.
 AU GOLDBERG D; TURLEY P K
 CS SECTION ORTHODONTICS, UNIV. CALIFORNIA AT LOS ANGELES SCH.
 DENT., CENT.
 HEALTH SCI., LOS ANGELES, CALIF. 90024.
 SO INT J ADULT ORTHOD ORTHOGNATHIC SURG, (1989) 4 (4), 255-266.
 CODEN: IAOSEE.
 FS BA; OLD
 LA English
 AB The purpose of this study was to examine the dental and periodontal
 changes associated with orthodontic space closure of edentulous maxillary
 first molar areas in adults. The sample consisted of 20 quadrants from 18
 patients. The pretreatment and posttreatment records included study casts,
 lateral cephalometric radiographs, and periapical or panoramic
 radiographs. Space closure averaged 5.3 mm. Eleven quadrants showed
 complete space closure, and nine quadrants averaged 1.0 mm of remaining
 space. Vertical bone loss averaged 1.2 mm mesial to and distal to the
 second molar and 0.6 mm distal to the second premolar. Although 60% of the
 quadrants showed .ltoreq. 1.5 mm of bone loss, the maximal bone loss
 reached 4.0 mm mesial to, and 5.0 mm distal to, the second molar. Although
 space closure should be considered a potential solution in the absence of
 the first permanent molar, ***alveolar*** ***bone*** loss and
 space ***opening*** can be common sequelae to this procedure.

L6 ANSWER 12 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
 INC. on STN
 AN 1989:287756 BIOSIS
 DN BA88:13100
 TI PULPAL PATHOSIS AND SEVERE ALVEOLAR LESIONS A CLINICAL
 STUDY.
 AU HIRSCH R S; CLARKE N G; SRIKANDI W
 CS DEP. OF DENT., UNIV. OF ADELAIDE, G. P. O. BOX 498, ADELAIDE,
 SOUTH
 AUSTRALIA 5001, AUST.
 SO ENDOD DENT TRAUMATOL, (1989) 5 (1), 48-54.
 CODEN: EDTRED. ISSN: 0109-2502.
 FS BA; OLD
 LA English
 AB Gingivitis is widely believed to be the precursor of crestal
 alveolar ***bone*** destruction (periodontitis) in some
 individuals. However, there is no correlation between gingivitis and
 severe localized lesions of ***alveolar*** ***bone***. Specific
 'periodontopathogens' of the indigenous oral flora are hypothesized to be
 the cause of localized lesions but the evidence to date is one of
 association only. Acute and chronic pulpal inflammation are known causes
 of irritation to the periodontal ligament and ***alveolar***
 bone; retrograde pockets may subsequently form. Contamination by
 indigenous organisms best adapted to the specific environment of the deep
 pocket could be expected to follow the establishment of the new
 conditions. This study was undertaken to examine the clinical and
 histological status of the pulps of teeth affected by severe localized
 alveolar lesions. A total of 153 teeth in 90 subjects were studied; full
 periodontic and endodontic assessments were made. Seventy-seven teeth
 responded in the normal range to pulp testing, but 52% of these had no
 recoverable tissue from their root canal systems on endodontic
 opening. The findings indicated that pulpal pathosis was not
 clinically detectable in the majority of teeth studied when conventional
 endodontic diagnostic tests were applied. Rather, the presence of
 localized severe alveolar defects was a more accurate predictor of pulpal
 pathosis. The strong association between pulpal pathosis and localized,
 severe alveolar defects and the appearance of similar lesions in dry

skulls indicates that the alveolar lesions were of pulpal origin with
 spread of localized periodontal sites.

L6 ANSWER 13 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
 INC. on STN
 AN 1989:179525 BIOSIS
 DN BA87:90791
 TI COMPUTER-ASSISTED DENSITOMETRIC IMAGE ANALYSIS CADIA FOR
 THE ASSESSMENT OF
 ALVEOLAR ***BONE*** DENSITY CHANGES IN FURCATIONS.
 AU BRAGGER U; PASQUALI L; WEBER H; KORNMAN K S
 CS UNIV. BERNE, SCH. DENTAL MED., FREIBURGSTR. 7, CH-3010 BERNE,
 SWITZ.
 SO J CLIN PERIODONTOL, (1989) 16 (1), 46-52.
 CODEN: JCPEDZ. ISSN: 0303-6979.
 FS BA; OLD
 LA English
 AB The purpose of this study was to test the applicability of
 computer-assisted densitometric image analysis (CADIA) for the
 quantitative assessment of ***alveolar*** ***bone*** density
 changes in furcations of multirooted teeth. In 21 patients, standardized
 radiographs were obtained immediately after and at 1, 6 and 12 months
 after periodontal flap procedure. Digitized images were obtained by means
 of a video-camera combined with an image processor that was linked to a
 computer. Quantitative information regarding density changes within
 windows covering furcation areas was obtained after
 superimposition and grey-level correction of images to be compared. 1
 months after flap reflection, significantly more density loss was obtained
 in test furcations exposed to periodontal surgery, compared to the density
 changes in control furcation exposed to scaling and root planing. At 12
 months, however, significantly greater increase in density was measured in
 test furcations compared to the 1-month result. The radiographic data were
 compared to the clinical parameters. In test furcations, there was a
 negative correlation of $r = -0.52$ between the GI and the loss in density
 at 1 month, and a negative correlation of $r = -0.61$ between the loss in
 density at 6 months and the probing attachment level at 12 months. These
 results indicate that CADIA may give valuable additional diagnostic
 information regarding ***alveolar*** ***bone*** density changes in
 furcation in studies on periodontal therapy.

L6 ANSWER 14 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
 INC. on STN
 AN 1989:48755 BIOSIS
 DN BA87:24755
 TI REMODELLING OF INTERDENTAL ***ALVEOLAR*** ***BONE***
 AFTER
 PERIODONTAL FLAP PROCEDURES ASSESSED BY MEANS OF
 COMPUTER-ASSISTED
 DENSITOMETRIC IMAGE ANALYSIS CADIA.
 AU BRAEGGER U; PASQUALI L; KORNMAN K S
 CS UNIV. OF BERNE, SCH. OF DENTAL MED., FREIBURGSTRASSE 7, CH-
 3010 BERNE,
 SWITZ.
 SO J CLIN PERIODONTOL, (1988) 15 (9), 558-564.
 CODEN: JCPEDZ. ISSN: 0303-6979.
 FS BA; OLD
 LA English
 AB The purposes of this study were to evaluate digitized images from
 standardized radiographs for quantitative changes in ***alveolar***
 bone density following periodontal surgical procedures, and to
 correlate these changes to the changes in the clinical parameters PII, GI,
 PD, AL. 14 crown-lengthening procedures for restorative purposes were
 performed in 13 patients and 15 modified Widman flaps were performed in 15
 patients, providing 61 surgical interdental test sites and 61 matching
 controls. Standardized radiographs were obtained immediately
 postoperatively, and at 1 and 6 months postsurgically. Digitized images
 were obtained from the radiographs by means of a video camera linked to an
 image processor and a computer. Quantitative information regarding density
 changes within ***windows*** covering the interdental alveolar crest
 was obtained after superimposition and grey-level correction of images to
 be compared. The results indicated statistically significantly more
 density loss 4 to 6 weeks postsurgically at test sites treated by
 periodontal surgical procedures compared to corresponding controls.
 Significant differences in the remodelling activity between the patients
 exposed to crown lengthening procedures for restorative purposes and the
 periodontitis patients in the period 1 to 6 months postsurgically were
 evident. CADIA assessed differences in the tissue changes in the healing
 phase following periodontal surgical procedures, which were not detected
 by the clinical variables applied.

L6 ANSWER 15 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS
 INC. on STN
 AN 1988:219625 BIOSIS
 DN BA85:108860
 TI OCCLUSAL INTERFERENCES AND TMJ DYSFUNCTION IN PATIENTS
 TREATED WITH FIXED
 PROSTHESIS.
 AU ETTALA-YLITALO U-M
 CS DEP. PROSTHETIC DENTISTRY, INST. DENTISTRY, UNIV. KUOPIO,
 FINLAND.
 SO PROC FINN DENT SOC, (1987) 83 (SUPPL 7), I-VIII, 1-110.
 CODEN: SHTOAC.
 FS BA; OLD

LA English

AB The present study consisted of 147 subjects treated with fixed prosthesis in 1977-80 at the Department of Prosthetic Dentistry, University of Kuopio, Finland. The subjects were invited to a clinical and radiological re-examination four years after the prosthetic treatment. The clinical examination included a detailed recording of occlusal interferences and periodontal condition, an interview on signs and symptoms of TMJ dysfunction, and a panoramic radiography. The effect of preprosthetic occlusal treatment, the effect of occlusal adjustment in a one-year follow-up study as well as the daily variation of occlusal interferences were also analysed. Similar clinical examinations were performed on 60 patients with rheumatoid arthritis (RA) and on their 40 controls. The aim of the present study was to assess the effect of occlusal interferences on the masticatory system and to analyse the periodontal condition in connection with interferences in patients treated with fixed prosthesis. Attention was paid to radiological changes in ***alveolar***

bone structure and the TMJ area, related to TMJ dysfunction and interferences. The most indicating factors for clinical TMJ dysfunction were analysed to find out whether differences in the symptoms and signs exist between "normal TMJ patients" and rheumatoid patients. The results showed a high frequency of interferences (98.6%) in patients treated with fixed prosthesis, especially in restored surfaces (in 42.6% of filled, in 34.9% of crowned surfaces and 27.0% of pontics). No diurnal variation was detected on interferences. Preprosthetic treatment ($p < 0.001$), as well as occlusal adjustment (in crowns $p < 0.05$), diminished the number of interferences but the complete elimination of interferences seemed to be impossible. Although only a few patients complained of TMJ symptoms (17.7%), the present study showed that clinical signs and symptoms of TMJ dysfunction are common in subjects with restored occlusion (85.7%). The influence of preprosthetic treatment was especially notable on clinical signs and symptoms of dysfunction ($p < 0.01$) and occlusal state ($p < 0.01$). Occlusal adjustment diminished the grade of the clinical ($p < 0.05$) and occlusal ($p < 0.05$) dysfunction score in the one-year follow-up study. Gingival inflammation (32.0%, 22.3%, $p < 0.001$) and deepened probing depths (4.3%, 3.3%, NS) were encountered more commonly in teeth with interferences than in non-interfered teeth. Vertical ***alveolar*** ***bone*** loss and/or sclerotic lamina dura can be regarded as a pathognomonic radiographic feature for interfered teeth (non interfered teeth 12.6%, interfered teeth 78.3%, $p < 0.001$). The most indicating factors for TMJ dysfunction relating to radiological TMJ changes in patients with fixed prosthesis were deviation on ***opening*** and tenderness to palpation of TMJ. The most discriminating factors for TMJ dysfunction in the RA patients were crepitation and movement limitations of TMJs. In the RA patients with radiographic TMJ abnormalities (68.3%) clinical dysfunction (94.5%) was common although the patients were often asymptomatic (79.7%).

L6 ANSWER 16 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1988:67884 BIOSIS

DN BA85:34183

TI PARAVASCULAR CELLS IN ENDOSTEAL SPACES OF ***ALVEOLAR*** ***BONE***

CONTRIBUTE TO PERIODONTAL LIGAMENT CELL POPULATIONS.
AU MCCULLOCH C A G; NEMETH E; LOWENBERG B; MELCHER A H
CS DIV. BIOLOGICAL SCI., FAC. DENT., UNIV. TORONTO, TORONTO, ONTARIO, CANADA
M5G 1G6

SO ANAT REC, (1987) 219 (3), 233-242.

CODEN: ANREAK. ISSN: 0003-276X.

FS BA; OLD

LA English

AB Endosteal spaces of ***alveolar*** ***bone*** communicate with the periodontal ligament and may contribute to its cell populations. We examined cell proliferation and migration in endosteal spaces and in the periodontal ligament contiguous with these spaces. Radioautographs of mouse mandibular molar were prepared from animals pulse-injected with 3H-Tdr and sacrificed in groups of 22 mice each at 1 h, 1, 3, and 7 d after labeling. Cell counts, labeling indices, grain counts, and progenitor cell ratios were determined. The data indicate that endosteal spaces are enriched with 3H-Tdr-labeled progenitor cells whose progeny rapidly migrate out of the compartment. The periodontal ligament contiguous with the endosteal spaces exhibited 5 times as many labeled cells as other sites in this tissue. Thickened areas of cementum were coincident with the ***openings*** of endosteal spaces in over 64% of observations. The data are consistent with the hypothesis that cells migrate from endosteal spaces into the periodontal ligament and there express the phenotype for osteoblasts or cementoblasts.

L6 ANSWER 17 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1987:482053 BIOSIS

DN BA84:116896

TI HISTOPATHOLOGICAL STUDIES OF THE INFLUENCE OF ROOT CANAL SEALERS TO DOGS'

TEETH WITH PERIAPICAL LESIONS.

AU MURAKAMI K

CS DEP. ENDODONTICS, TOKYO DENTAL COLL., CHIBA 260, JPN.

SO SHIKWA GAKUHO, (1987) 87 (5), 745-799.

CODEN: SHGKA3. ISSN: 0037-3710.

FS BA; OLD

LA Japanese

AB To clarify the influences of various materials on periapical lesions in

dogs, a histo-pathological investigation was made by applying 4 kinds of root-canal sealers-Canals, Sealapex, Neotriozinc Paste, and AH26-to infected root canals. One hundred and twenty root canals from mandibular premolars and molars obtained from eighteen healthy, mature dogs were employed. After pulp extirpation, under intravenous anesthesia, an engine reamer (Nos. 20-40) was used to enlarge the root canal. Although the opening was ***closed*** with a sandrac cotton pellet, the canal was left unfilled for four weeks. After the presence of a Roentgeno-lucent region in the periapical tissue was ascertained, the temporary sealing was removed; and a No. 40 engine reamer, under a current of sterile distilled water, was used to perforate the root apex. Then a No. 60 engine reamer was used to enlarge the root canal. Sterile distilled water was employed for irrigation, and the canal was dried with sterile paper points. After the root canal was filled with gutta-percha points and one of the sealers mentioned above (Canals in 30 instances, Sealapex in 30, Neotriozinc Paste in 30, and AH26 in 30), Roentgenograms were taken. Either two or sixteen weeks after the operation, histo-pathological examinations were made on decalcified sections stained with hematoxylin-eosin. 1. When Canals was used, although suppuration persisted even in long-term materials and although the apex did not close if the material was packed tightly into the canal all the way to the apical dentocemental junction, cicatrization was never hindered. 2. When Sealapex was used, newly forming tissue matrix closed the apex if the root canal filling stopped a little short of the tooth apex. Fragments of the material scattered, in large or small amounts, throughout periapical tissue were encapsulated by connective tissue and showed excellent biocompatibility, although no new bone formation took place in contact with the alveolar bone. ***3***

In the case of Neotriozinc Paste, whereas cicatrization was accelerated and apical closure was effected by hard tissue in long-term specimens, coagulation necrosis in direct contact with the material occurred in short-term specimens. 4. In the case of AH26, in long-term specimens, extensive round-cell infiltration and vigorous engulfing to the material by macrophages suggest a poor outlook for positive healing.

L6 ANSWER 18 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1987:356668 BIOSIS

DN BA84:54071

TI EXPERIMENTAL EXTRA-FOLLICULAR HISTOGENESIS OF FOLLICULAR CYSTS.

AU ALTINI M; COHEN M

CS DEP. ORAL PATHOL., SCH. DENT., UNIV. WITWATERSRAND, 1 JAN SMUTS AVE.,

JOHANNESBURG, 2001, S. AFR.

SO J ORAL PATHOL, (1987) 16 (2), 49-52.

CODEN: JOPHBO. ISSN: 0300-9777.

FS BA; OLD

LA English

AB An animal model has been developed in which implantation cysts have been produced very close to developing teeth within the jaws of Vervet monkeys. Various deciduous teeth were extracted from both the maxilla and the mandible of 6 young Vervet monkeys. After 4 weeks, full thickness mucoperiosteal flaps were raised in these areas, up to 6 recipient sites were prepared in each monkey by drilling ***holes*** in the ***alveolar*** ***bone*** and small pieces of autogenous palatal mucosa were placed in these graft recipient sites. One monkey was killed after 5, 8, 22 and 25 weeks respectively and 2 after 52 weeks. Of the 33 implants placed, cyst formation occurred from 11 (33%). The distribution of the cysts was irregular in that 4 cysts were produced in each of 2 animals while no cysts were found in another 2 animals. The cysts produced were filled with keratin and lined partly by a thick keratinising epithelium and partly by a thin non-keratinising epithelium only a few cell layers thick. In one of the animals killed after 52 weeks, the follicle of an erupting premolar tooth had collided with one of the cysts resulting in the cyst lining becoming incorporated into the follicle, partly replacing the follicular reduced enamel epithelium and forming now an integral part of the follicle. This observation supports the hypothesis that the follicular odontogenic keratocyst has an extra-follicular origin arising after the eruption of a tooth into a pre-existing cyst cavity.

L6 ANSWER 19 OF 40 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC. on STN

AN 1986:110930 BIOSIS

DN BA81:21348

TI VISUALIZATION OF THE HUMAN PERIODONTIUM USING SERIAL THIN SECTION CONTACT RADIOGRAPHY.

AU MOSKOW B S; TANNENBAUM P; BLOOM A

CS COLUMBIA UNIVERSITY, SCHOOL OF DENTAL AND ORAL SURGERY, 630 W. 168TH ST., NEW YORK, NY 10032.

SO J PERIODONTOL, (1985) 56 (4), 223-233.

CODEN: JOPRAJ. ISSN: 0022-3492.

FS BA; OLD

LA English

AB A method is described to produce radiographs of thin sections of human teeth and periodontal structures. These high resolution contact X-rays allow for visualization of the microscopic details of the mineralized components of these tissues in a dimension heretofore not examined. Twenty-five blocks of human jaws containing teeth affected by periodontal disease were obtained from cadavers. Sagittal, transverse and cross-sectional serial slices were cut using a rotary instrument (1500 rpm) with a water-cooled 3-inch jewelers ***slot*** saw. Five

hundred- μ m sections were made of jaw specimens containing 2 or 3 teeth. The radiographs were taken with a Faxitron low voltage X-ray machine on Kodak-Orho, Type 3 film. Films were exposed at a distance of 12 inches from the X-ray source at 35 kVp and 1.0 mA for 3 minutes with the specimen in direct contact with the film. Spatial representation of the internal structure of the ***alveolar*** ***bone*** was obtained using this technique and the detailed anatomy of the vascular channels within the cancellous and cortical compartments of the jaws was studied. Mineralization patterns of plaque and calculus, calcifications in the periodontal ligament, pulp calcifications, accessory root canals, caries and detailed structural changes in the enamel and cementum were also viewed on these films with the aid of microscopy. Magnifications of up to 30 times were used without excessive image distortion resulting from film grain.

L6 ANSWER 20 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 2003189784 EMBASE

TI Microvascular response in the periodontal ligament following mucoperiosteal flap surgery.

AU Nobuto T.; Imai H.; Suwa F.; Kono T.; Suga H.; Jyoshi K.; Obayashi K.
CS Dr. T. Nobuto, Department of Periodontology, Osaka Dental University, 1-5-17 Otemae, Chuo-ku, Osaka-shi, Osaka 540-0008, Japan.

imai-h@cc.osaka-dent.ac.jp

SO Journal of Periodontology, (1 Apr 2003) 74/4 (521-528).

Refs: 35

ISSN: 0022-3492 CODEN: JOPRAJ

CY United States

DT Journal; Article

FS 005 General Pathology and Pathological Anatomy

011 Otorhinolaryngology

LA English

SL English

AB Background: When the mucoperiosteal flap is elevated, the gingivo-periosteal vascular plexus and periodontal ligament (PDL) vascular plexus sever their connection with the circulatory tracts that pass through ***alveolar*** ***bone***. We studied the effect exerted on the PDL vascular plexus during restoration of the circulatory tract. Methods: We performed experimental mucoperiosteal flap surgery in adult beagle dogs. Histological specimens, prepared after injecting India ink into the blood vessels on postoperative days 5, 7, 14, 21, 28, and 42, were examined under a light microscope. In addition, vascular corrosion cast specimens of the PDL, into which acrylic resin was injected, were observed using a scanning electron microscope. Results: On postoperative day 5, the PDL vascular plexus had formed new blood vessels toward the bone side and root side, and bone resorption of the ***alveolar*** ***bone*** proper had initiated primarily around the ***opening*** of the Volkmann's canal. From postoperative day 7 to 14, the PDL vascular plexus formed new vessels on the bone side and root side accompanied by bone resorption of the alveolus, and demonstrated a complicated vascular architecture, which gradually organized and transformed into a mesh structure from postoperative day 21. Osteogenesis was initiated and encircled the newly formed vessels, and the ***alveolar*** ***bone*** proper recovered to a flat morphology. Judging from the quantity of new vessels and bone resorption, the width of the PDL space seemed to be the greatest on postoperative day 14. Conclusions: When the mucoperiosteal flap was elevated, active wound healing was activated because of angiogenesis from the PDL, which possesses a microcirculatory system. Moreover, it was suggested that angiogenesis of the PDL vascular plexus and subsequent bone resorption of ***alveolar*** ***bone*** might temporarily reduce the tooth-supporting function and cause postoperative mobility.

L6 ANSWER 21 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 2001404531 EMBASE

TI Problems of the maxillary reconstruction with a free LDMC flap with vascularized bone flaps.

AU Kaneko T.; Ogata H.; Nakajima T.; Fujii M.

CS Dr. T. Kaneko, Department of Plastic Surgery, School of Medicine, Keio University, Tokyo 160-8582, Japan

SO Japanese Journal of Plastic and Reconstructive Surgery, (2001) 44/10 (959-968).

Refs: 14

ISSN: 0021-5228 CODEN: KEGEAC

CY Japan

DT Journal; Article

FS 009 Surgery

011 Otorhinolaryngology

LA Japanese

SL English; Japanese

AB Our basic concept of maxillary reconstruction has been to fill the defect with well-vascularized autogenous tissues which afford the patients sound healing and speedy recovery. In order to obtain good aesthetic and functional results, it has become clear that both soft tissue and bony reconstruction is essential. Our choice of the flap for the standard total maxillectomy defect is the free Latissimus dorsi MC flap attached with vascularized bone flaps. In this procedure, the palatal and nasal defects are reconstructed with skin paddles of a double-folded LDMC flap and the bony defects of orbital floor and/or between zygoma and ***alveolar*** ***bone*** are reconstructed with a scapular angle bone flap and a costal bone flap. Among the problems associated with free flap transfer to the maxillectomy defect, the sagging of the cheek tissue and the

transferred flap and secure fitting of dental prosthesis are well solved with this procedure. Ocular ptosis and diplopia can be avoided by proper positioning of a bone flap into the defect of the orbital floor, either scapular angle or costal bone flap in most cases. However, it is still difficult in cases when medial orbital wall is widely resected. Obstruction of the lacrimal system can be avoided by the intraoperative identification of a lacrimal ***opening*** and by keeping it open. Although the nasal cavity is filled with the flap immediately after the operation, with the disuse atrophy of the LD muscle, it gradually opens to almost normal shape. However, there are some patients who complain crust formation and malodor. What is the best material of nasal lining is still unsolved problem. There are still some problems in soft tissue reconstruction. The palpebra should be preserved as possible, because once the palpebra is healed with scar formation, it is very difficult to restore its function. Reconstruction of the cheek skin should be done by a local flaps not by skin paddle of a free LDMC flap. In this situation dynamic reconstruction of the cheek should be considered to restore patient's some complexion.

L6 ANSWER 22 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 2001404113 EMBASE

TI Navigational precision of drilling tools preventing damage to the mandibular canal.

AU Gaggli A.; Schultes G.; Karcher H.

CS Prof. A. Gaggli, Abt. Mund- Kiefer- Gesichtschirurgie, Universitätsklinik/LKH Graz, Dept. of Oral/Maxillofacial Surgery, Auenbruggerplatz 7, A-8036 Graz, Austria

SO Journal of Cranio-Maxillofacial Surgery, (2001) 29/5 (271-275).

Refs: 23

ISSN: 1010-5182 CODEN: JCMSET

CY United Kingdom

DT Journal; Article

FS 011 Otorhinolaryngology

014 Radiology

027 Biophysics, Bioengineering and Medical Instrumentation

LA English

SL English

AB Purpose: The use of CT-based intraoperative navigation has greatly improved surgical control in many specialties. In this study the precision of the SMN(RTM.) system (Zeiss, Oberkochen, Germany) for navigated drilling before implant insertion is evaluated. Material and Method: One hundred test drillings were carried out on 10 standardized acrylic lower jaw models with the aid of the navigation system after CT scanning. The CT scans were taken using a slice thickness of 1 mm. Then the CT data were transferred to the workstation of the SMN(RTM.) system and reorientation with the help of reference points (fiducials) of the mandibular models for superposition of the acrylic and the CT models were carried out. Reorientation of the model and the drilling were performed by a drilling tool. The limit of drilling was the upper border of the mandibular canal. The aim was to come as near as possible without perforation of the canal roof. Results: An average drilling depth of 6.23 mm and a mean distance to the mandibular canal of 0.14 mm (s=0.05) was found. In 11 cases the upper border of the canal was perforated. The average penetration of the mandibular canal measured 0.19 mm. Eighty-nine drill ***holes*** were accomplished without perforation. The average distance to the alveolar canal measured 0.13 mm. Conclusion: A high precision of CT-based navigation for controlled drilling of mandibles for dental implants was seen. COPYRIGHT. 2001 European Association for Cranio-Maxillofacial Surgery.

L6 ANSWER 23 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 2000018672 EMBASE

TI Iliac crest bone graft harvesting techniques: A comparison.

AU Burstein F.D.; Simms C.; Cohen S.R.; Work F.; Paschal M.

CS Dr. F.D. Burstein, Center for Craniofacial Disorders, 5455 Meridian Mark Rd., Atlanta, GA 30342, United States. fburstein@aol.com

SO Plastic and Reconstructive Surgery, (2000) 105/1 (34-39).

Refs: 31

ISSN: 0032-1052 CODEN: PRSUA5

CY United States

DT Journal; Article

FS 009 Surgery

LA English

SL English

AB This study was undertaken to compare the morbidity of traditional iliac bone graft harvesting techniques for grafting alveolar clefts to minimally invasive techniques. Fifty-five age-matched patients, ages 6.5 to 16 years (mean, 11.2 years), 22 girls and 33 boys, were divided into three groups. The traditional bone ***window*** open harvesting technique served as the control group. Two different minimally invasive techniques, one that used a bone grinder and another that used a trephine, for bone harvesting were compared with the control. Both invasive techniques were statistically superior, $p < 0.05$, in terms of total time pain medication was necessary (mean of 12.0 hours for bone grinder, 17.6 hours for trephine, 26.0 hours for control), operative time for bone harvest (mean of 11 minutes for bone grinder and trephine, 20 minute for control), and mean incision length (2 cm for bone grinder and trephine, 5 cm for control). Patients exposed to the minimally invasive techniques had fewer complications, a trend toward earlier ambulation, and shorter hospital stays when compared with the bone grinder technique. The patients exposed to the bone grinder demonstrated earlier ambulation and fewer requirements

for analgesia when compared with the trephine technique, although these results did not reach statistical significance. The trephine technique was useful when maxillary osteotomies were combined with ***alveolar*** bone grafting, because it provided structural bone grafts and cancellous bone. On the basis of these findings, the bone grinder is the preferred technique for harvesting ***alveolar*** bone grafts when no structural support is required. These authors no longer use the traditional bone window open harvesting technique.

L6 ANSWER 24 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 1999034895 EMBASE

TI Primary alveolar cleft bone grafting in unilateral cleft lip and palate: Craniofacial form at age 8.

AU Hathaway R.R.; Eppley B.L.; Nelson C.L.; Sadove A.M.

CS Dr. R.R. Hathaway, Riley Children's Hospital, 702 Barnhill Drive, Indianapolis, TN 46202, United States

SO Journal of Craniofacial Surgery, (1999) 10/1 (68-72).

Refs: 6

ISSN: 1049-2275 CODEN: JSURE8

CY United States

DT Journal; Article

FS 001 Anatomy, Anthropology, Embryology and Histology

007 Pediatrics and Pediatric Surgery

011 Otorhinolaryngology

033 Orthopedic Surgery

LA English

SL English

AB Counterpart analysis can be advantageous for the clinician interested in the underlying determinants of the craniofacial form for any given person. This analysis was performed for a group of patients who underwent primary alveolar cleft bone grafting (N = 18) and a group of patients who did not undergo grafting (N = 19) who were 8 years of age (+/- 6 months). The primary grafting group more frequently noted maxillary retrusion, but of a nonsignificant magnitude. Also, the primary grafting group had greater mean magnitudes of mandibular ***opening*** as a compensatory adjustment in some patients, but this could not be generalized to all patients who had undergone primary grafting. The mean magnitude of craniofacial vertical shortening was also greater for some patients who had undergone primary grafting, but it, too, did not exhibit a generalized pattern for all patients who had undergone primary alveolar cleft bone grafting procedures. This study emphasizes the great diversity of craniofacial skeletal adjustments made within each group of patients with unilateral cleft lip and palate and cautions the clinician against generalizations concerning a particular treatment protocol.

L6 ANSWER 25 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 1998325602 EMBASE

TI Effects of ipriflavone on perialveolar bone formation.

AU Martini M.; Formigli L.; Tonelli P.; Giannelli M.; Amunni F.; Naldi D.; Brandi M.L.; Orlandini S.Z.; Orlandini G.E.

CS G.E. Orlandini, Dept. of Human Anatomy and Histology, University of Florence, Viale Morgagni, 85, 50134 Florence, Italy

SO Calcified Tissue International, (1998) 63/4 (312-319).

Refs: 35

ISSN: 0171-967X CODEN: CTINDZ

CY United States

DT Journal; Article

FS 033 Orthopedic Surgery

037 Drug Literature Index

LA English

SL English

AB The effect of ipriflavone (IP), a synthetic isoflavonoid derivative, on in vivo bone formation was studied in rat perialveolar bone by surgically producing a ***hole*** in the mandibular bone. The ***holes*** were filled either with powdered IP or with compounds containing no osteoinductive properties such as biostite and Htr (hard tissue replacement). In control animals, the ***holes*** were left to heal spontaneously. The animals were killed 3, 28, and 40 days after surgery and a detailed morphological and morphometric study was performed on the perialveolar bone surrounding the wounds. Three days after surgery (inflammatory phase) the bone wounds were occupied by hemorrhagic and inflammatory cells in both the untreated and IP-treated bone defects. Twenty-eight days after surgery, bone formation was evident with new bone spiculae particularly concentrated in the area of the bone lesion closest to the adjacent periodontal ligament. Morphometric measurements of the areas occupied by new bone showed that the synthesis of perialveolar bone was significantly stimulated by IP. The repair of the bone defects by new bone formation progressed by day 40, but only in the presence of IP were the original ***holes*** almost completely repaired. Conversely, biostite and Htr did not influence promotion of new bone formation. In conclusion, the results of the present study are consistent with a role of IP in stimulating osteogenesis and suggest that this compound could represent a potential therapeutic tool to promote repair of injured perialveolar bone.

L6 ANSWER 26 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 1998090599 EMBASE

TI The effect of locally applied gauze drain impregnated with chlortetracycline ointment in mandibular third-molar surgery.

AU Akota I.; Afsaker B.; Bjornland T.

CS T. Bjornland, Department of Oral Surgery/Oral Med., Faculty of Odontology, University of Oslo, P.O. Box 1109 Blindern, N-0317 Oslo, Norway

SO Acta Odontologica Scandinavica, (1998) 56/1 (25-29).

Refs: 30

ISSN: 0001-6357 CODEN: AOSCAQ

CY Norway

DT Journal; Article

FS 011 Otorhinolaryngology

037 Drug Literature Index

LA English

SL English

AB A prospective randomized crossover, within-patient, controlled study was performed in 26 healthy patients to test the effect of the prophylactic local use of gauze drain impregnated with chlortetracycline (Aurocomycin 3% RTM., Lederle) ointment on postoperative alveolitis formation after surgical removal of 52 bilaterally impacted mandibular third molars. The teeth were removed on two separate occasions; on one side drain was inserted in the socket, and on the other side no drain treatment was used for control. The influence on postoperative pain, swelling, and mouth ***opening*** ability was investigated. The results indicated a statistically significant reduction (P = 0.02) in the incidence of postoperative inflammatory complications, defined as postoperative alveolitis, from 35% in the no-drain group to 4% in the drain group. No statistically significant difference was found between the two treatment methods with regard to pain and mouth ***opening*** reduction. There was a significant difference between the drain and no-drain treatment with regard to swelling on the 1st postoperative day in favor of the no-drain method. It is concluded that insertion of a chlortetracycline-impregnated drain may be an effective method for reducing postoperative alveolitis formation but has no beneficial effect on pain, swelling, and mouth ***opening*** reduction after impacted mandibular third-molar surgery.

L6 ANSWER 27 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 96264395 EMBASE

DN 1996264395

TI A new intermaxillary fixation method that requires no tooth wiring.

AU Hayashi S.; Ono S.

CS School of Medicine, Yokohama City University, Urafune Hospital, Yokohama 236, Japan

SO Japanese Journal of Plastic and Reconstructive Surgery, (1996) 39/7 (675-681).

ISSN: 0021-5228 CODEN: KEGEAC

CY Japan

DT Journal; Article

FS 009 Surgery

LA Japanese

SL English; Japanese

AB In view of the pressure that an intermaxillary fixation exerts on the teeth, the oral mucosa, and periodontal tissue, an ideal maxillary fixation should be one that imposes no load on the teeth and is as simple as possible to install. Given these guidelines, we have developed a new intermaxillary fixation method that places a screw, to serve as anchorage, directly into the ***alveolar*** bone. This simple fixation method does not burden the teeth and is easy to perform. In contrast to commonly performed intermaxillary fixation methods that require tooth wiring and an arch bar, this new method minimizes wiring of the oral cavity. As a consequence, oral discomfort lessened, the buccal mucosa is less likely to be irritated, and cleaning of the oral cavity and the area surrounding the screw is easy, thereby lowering the risk of oral contamination. We have employed this new intermaxillary fixation method in 30 patients who had sustained a maxillary fracture and had postoperative mouth- ***opening*** limitations following orthognathic surgery. The follow-up of these patients revealed very satisfactory findings: the fixation placed no burden on the teeth, the periodontal tissue damage was minimal, and the fixation strength was good. Herein, we describe this excellent fixation method.

L6 ANSWER 28 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN

AN 96056002 EMBASE

DN 1996056002

TI Detection of simulated osteoporosis in maxillae using radiographic texture analysis.

AU Southard T.E.; Southard K.A.

CS Department of Orthodontics, Dental Science Building, University of Iowa, Iowa City, IA 52242, United States

SO IEEE Transactions on Biomedical Engineering, (1996) 43/2 (123-132).

ISSN: 0018-9294 CODEN: IEBEAX

CY United States

DT Journal; Article

FS 027 Biophysics, Bioengineering and Medical Instrumentation

033 Orthopedic Surgery

LA English

SL English

AB An effective mass screening tool for detecting osteoporosis is currently lacking. ***Alveolar*** bone, routinely examined during periodic dental examinations, may provide a ***window*** into the status of systemic bone density. The primary objective of this investigation was to compare the performance of various textural features, computed from dental radiographs, in detecting early simulated

- osteoporosis of ***alveolar*** ***bone***. Five specimens of human maxillary ***alveolar*** ***bone*** were progressively decalcified and the percentage calcium lost at each decalcification stage quantified. Two radiographs of each specimen, together with an aluminum stepwedge, were exposed at 70 kVp at each stage. The test set of 140 radiographs was digitized, identical bony regions of interest selected from the density-corrected images of each specimen, the regions digitally filtered to reduce film-grain noise, and textural features computed on a line-to-line basis. Correlation analysis identified a set of features whose changes consistently exhibited a moderate- to-strong linear association with bone mineral loss over a wide range of decalcification. Repeated measures analysis of variance was subsequently applied to this set to measure the minimal decalcification that could be detected by each feature under optimal conditions of x-ray beam angulation (0 degree.) and suboptimal conditions (+/- 5 degree.). The best performing features were mean intensity, gradient, Laws' texture energy measures, and fractal dimension which detected 5.7 % bone decalcification at optimal beam angulation and 9.4-12.6 % at suboptimal angulation.
- L6 ANSWER 29 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
AN 89070636 EMBASE
DN 1989070636
TI The mentalis muscle: An essential component of chin and lower lip position.
AU Zide B.M.; McCarthy J.
CS Institut of Reconstructive Surgery, NYU Medical Center, New York, NY 10016, United States
SO Plastic and Reconstructive Surgery, (1989) 83/3 (413-420).
ISSN: 0032-1052 CODEN: PRSUAS
CY United States
DT Journal
FS 034 Plastic Surgery
LA English
SL English
AB The soft-tissue chin may become ptotic following surgery in this area. The mentalis muscles which are responsible for proper central lip motion and chin point position may be affected. The mentalis muscle origin may require resuspension at a proper level. This reattachment may be performed by means of an intraoral approach. Non-absorbable sutures are used to hold the soft-tissue chin upward. The exact method involves placing drill ***holes*** through the ***alveolar*** ***bone***, into which sutures are passed. These sutures are then placed through the lower mentalis muscles and tightened. Chin and lip position may be corrected in certain cases. Ancillary procedures are required to correct vestibular scarring and submental scars.
- L6 ANSWER 30 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
AN 88244674 EMBASE
DN 1988244674
TI Some applications of top hat transformations in the processing of biological images.
AU McMillan P.J.
CS Anatomy Department, Loma Linda University, Loma Linda, CA 92350, United States
SO Acta Stereologica, (1988) 7/1 (73-80).
ISSN: 0351-580X CODEN: ASTLDL
CY Yugoslavia
DT Journal
FS 001 Anatomy, Anthropology, Embryology and Histology
027 Biophysics, Bioengineering and Medical Instrumentation
LA English
SL English
AB The nonlinear filter known as top hat is especially useful to isolate small features for quantitation. This study demonstrates a range of applications of this filter for feature extraction from images of biological materials. It is shown that features partially obscured by shadows or highlights, such as carbon deposits as seen on the lung surface, are readily defined and thus quantitated. Similarly the trabecular pattern of ***alveolar*** ***bone*** and irregularities of calcification in the teeth in dental X rays can be objectively isolated for analysis. The hetero- and euchromatic regions of cell nuclei in electron micrographs are defined by an ***opening*** with thresholding and by the use of an annular structuring element the filamentous and granular chromatin are differentially characterized. A double filtration allows the differential isolation of neurotubules and neurofilaments in electron micrographs of axoplasm.
- L6 ANSWER 31 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
AN 80048917 EMBASE
DN 1980048917
TI Endodontic perforations which resulted in ***alveolar*** ***bone*** Loss. Report of five cases.
AU Meister Jr. F.; Lommel Gerstein T.J.H.; Esch Davies E.
CS Dept. Periodontics, Marquette Univ. Sch. Dent., Milwaukee, Wis. 53202, United States
SO Oral Surgery Oral Medicine and Oral Pathology, (1979) 47/5 (463-470).
CODEN: OSOMAE
CY United States
DT Journal
FS 005 General Pathology and Pathological Anatomy
- 011 Otorhinolaryngology
LA English
AB Five cases in which perforations of mandibular molars into the furca occurred during endodontic instrumentation of the canal are presented. This resulted in ***alveolar*** ***bone*** loss. All were relatively asymptomatic, which could present a problem of the periodontal defect. The prognosis is questionable. The only tooth retained was treated surgically by an apically positioned flap and ***opening*** of the furca area to make it accessible to cleansing. The best treatment is the avoidance of the perforation. This is accomplished by considering the configuration of the canals and the size of the reamer that can follow it. Overinstrumentation with an endodontic instrument that is too large in diameter should be avoided.
- L6 ANSWER 32 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
AN 78248648 EMBASE
DN 1978248648
TI [Hyperostosis of the ***alveolar*** ***bone*** margin].
LE IPEROSTOSI DEL MARGINE OSSEO ALVEOLARE.
AU Calandriello M.; Borsetti A.
CS Clin. Odontoiatrica, Univ. Bologna, Italy
SO Minerva Stomatologica, (1977) 28/1 (17-24).
CODEN: MISTAV
CY Italy
DT Journal
FS 011 Otorhinolaryngology
005 General Pathology and Pathological Anatomy
LA Italian
SL English
AB Defects of the bone margin requiring osteotomy and osteoplasty include hyperostotic processes, formations which, while recalling palatine and mandibular tori, have their own nosological ***slot***. Hyperostosis is characterized by thickening of the cervical margin and is linked by a narrow isthmus to the underlying bone plane; it occurs with greatest frequency in the vestibular region. The personal case, in a man of 52, presented 2 sausage-shaped protuberances located apically at the alveolar margin in the 2 left arches. Their removal presented no problem of surgical technique as the hyperostosis had no close links with the underlying bone planes. Histological examination of the fragments showed that the hyperostotic tissue consisted of fascicular bone with an intima vascular component. Two yr after the operation, the patient presents no signs of relapse and appears to be completely cured.
- L6 ANSWER 33 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
AN 78237466 EMBASE
DN 1978237466
TI [Incisions in oral surgery].
LES INCISIONS EN CHIRURGIE BUCCALE.
AU Daniel A.
CS Fac. Chir. Dent., Nantes, France
SO Schweizerische Monatsschrift fur Zahnheilkunde, (1977) 87/12 (1228-1249).
CODEN: SMZAAZ
CY Switzerland
DT Journal
FS 011 Otorhinolaryngology
009 Surgery
LA French
SL German; English
AB Oral mucosa incision can allow several interventions: cellulitis or periodontal abscess ***opening***, gingival tissue excision or repositioning or at least exposure of ***alveolar*** ***bone*** for tooth extraction or infrabony pockets' treatment. The different incisions are described with special considerations: on the anatomic environment of the oral cavity (palatal arteries, mandibular nerve); on the healing patterns of the different periodontal tissues (rapid cellular turnover of the epithelial attachment for instance); on the suturing for each intervention. The instrumentation needed for the different incisions is described and clinical cases are presented before, during and after oral surgery. The use of an electrical knife is noted with the contraindications of this operative procedure.
- L6 ANSWER 34 OF 40 EMBASE COPYRIGHT 2003 ELSEVIER SCI. B.V. on STN
AN 75139175 EMBASE
DN 1975139175
TI The mandibular staple implant for the atrophic mandible.
AU Small I.A.; Metz H.; Kobernick S.
CS Sinai Hosp., Detroit, Mich., United States
SO Journal of Biomedical Materials Research, (1974) 8/4 (365-371).
CODEN: JBMRBG
DT Journal
FS 034 Plastic Surgery
033 Orthopedic Surgery
011 Otorhinolaryngology
LA English
AB The mandibular staple is an endosseous implant that will permit the attachment of a lower denture in cases of severe ***alveolar*** ***bone*** atrophy. It is placed through a submental incision and inserted into seven parallel ***holes*** drilled into the mandible. A curved bar containing seven pins is inserted in the ***holes*** and is placed against the inferior border of the mandibular symphysis. The two

lateral most pins project into the mouth and the five retentive pins remain completely buried in bone. Two fasteners are screwed down on the threading of the intraoral pins. Later a bridge containing Dalbo attachments is cemented to the fasteners which allow attachment to a lower denture. A series of 25 patients has been completed with 20 successful patients for survival rate of 80%. The longest case has been in for five years and the average case has been in for 3 years. Stainless steel, titanium and ceramic coated titanium has been used with apparently equal success. Patient acceptance has been excellent.

L6 ANSWER 35 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:365228 CAPLUS
TI ***Alveolar*** ***bone*** extended vessel [Machine Translation].
IN Koseki, Tomoaki
PA [NAME NOT TRANSLATED], Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003135478	A2	20030513	JP 2001-339339	20011105
PRAI JP 2001-339339		20011105		

AB [Machine Translation of Descriptors]. The whole with the compact, the ***alveolar*** ***bone*** extended vessel which on the first can make the extension of fixed quantity secure is offered. It was constituted from the plate, the screw for extension and the screw for fixing which the screw ***hole*** were opened it designated the plate as the structure which does ***alveolar*** ***bone*** extension by locking ***alveolar*** ***bone*** base and the portable scierite with the screw for fixing, through the cylinder, it turns the screw for extension. The point of the screw for extension was designated as form and the structure which do not eat into ***alveolar*** ***bone*** base. In combination with screw cutting pitch of the screw for extension to the bone extended quantity of one day, it set. The ***hole*** arrangement which is opened to the plate the odd number line and the even number line were arranged alternately, the whole was designated as the compact by making the distance between the line short. You opened to radial pattern and the ***hole*** for the screw for fixing around cylinder, with the cylinder as a center, the case of bone extension you made ***hole*** arrangement of the plate which withstands load. In regard to processing the plate part, in order to guarantee scantness and ***hole*** precision simultaneously, you bored the ***hole*** through the plank first with the drill, left the height of the cylinder part and you made production method of the plate part which it starts shaving with the milling machine.

L6 ANSWER 36 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2003:29537 CAPLUS
DN 138:78545
TI Hyaluronic acid gel-based cell culture substrates for tissue regeneration
IN Kato, Yukio; Tsutsumi, Shinichi; Miyazaki, Kazuko; Hara, Maiko; Kawaguchi, Hiroyuki; Kurihara, Hidemi; Miyoshi, Shozo; Hashimoto, Masamichi; Himeta, Koichi
PA Denki Kagaku Kogyo Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2003010308	A2	20030114	JP 2001-196687	20010628
PRAI JP 2001-196687		20010628		

AB The substrate is made of hyaluronic acid (I) gel which is not substantially modified with chem. crosslinking agents or chem. modifying agents and is slightly-sol. in neutral aq. soln. Animal cells, e.g. chondrocytes, stem cells, bone marrow cells, osteoblasts, ES cells, etc., are disseminated on the substrate and the substrate contg. the surviving cells is applied to defective parts of tissues to regenerate tissues, e.g. articular cartilage, costal cartilage, tracheal cartilage, skull, periodontium, cementum tendon, ligament, etc. The gel may be in the forms of sheets, films, sponges, fibers, tubes, etc., and contain bioactive substances such as cell growth factors, antibiotics, proteins, oligosaccharides, or nucleic acids. I with mol. wt. 2. times. 106 dalton was dissolved in H₂O and the soln. was adjusted to pH 1.5 with HNO₃ and frozen in a flat-bottomed container at -20.degree. for 5 days. The frozen product was soaked in a phosphate-buffered saline soln. for 24 h and dried to give sponge-like gel. Rabbit femur- and tibia-derived mesenchymal cells (prepn. given) were disseminated on the gel and incubated to become confluent in the presence of bFGF. Subculture was repeated twice and the 3rd subculture was implanted into a drilled ***hole*** formed in knee articular cartilage of a rabbit to promote regeneration of cartilage and bone.

L6 ANSWER 37 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2002:491950 CAPLUS
DN 137:37697
TI Implants for straightening teeth
IN Lee, Dong Hwan
PA S. Korea
SO Repub. Korean Kongkae Taeho Kongbo, No pp. given

CODEN: KRXXA7
DT Patent
LA Korean
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI KR 2000072199	A	20001205	KR 2000-47352	20000817
PRAI KR 2000-47352		20000817		

AB Implants for straightening teeth are provided which used as a bracket to be adhered to the teeth and various kinds of wire to support a penetration ***hole*** of the implant so that it helps teeth to be arranged as identical as normal teeth. The implant which is made from titanium, is formed to insert the penetration ***hole*** wherein various types of wires are inserted to an upper part, in which a nut part and a teetheridge part are buried; and a binding ***hole*** wherein a guide groove to suspend an elastic band ring for fixing the wire is formed in the outer circumference and combined with common dental tool to sep. the nut part from ***alveolar*** ***bone*** at jawbone.

L6 ANSWER 38 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN
AN 2000:527791 CAPLUS
DN 133:251606

TI The experimental study on dietary therapy of bone loss in mandibular ***alveolar*** ***bone*** in prime age
AU Murata, Machiko; Maki, Kenshi; Zhang, Zuyan; Akamine, Hideki; Haruoka, Makoto; Yasui, Hisato
CS Department of Pediatric Dentistry, Kyushu Dental College, Kitakyushu, Japan
SO Kyushu Shika Gakkai Zasshi (2000), 54(2), 221-239
CODEN: KSGZA3; ISSN: 0368-6833
PB Kyushu Shika Gakkai
DT Journal
LA English

AB Seventeen-week-old male Wistar rats corresponding to the prime of life human were used. In control group, rats were fed with std. diet for 6 wk. In Ca-deficient group and low Ca group, Ca-deficient and low Ca chows were fed for 3 wk, followed by std. chow feeding for another 3 wk. The effects of the dietary therapy on bone matrix formation were investigated, and results were as follows. 1.Wt.: No significant differences were obsd. among the control and exptl. groups. 2. Radiog. findings: In Ca deficient group, the width and no. of trabeculae were decreased, arrangement irregular, and less radiopaque. Low Ca rats exhibited the equiv. appearance to that of control animals. 3. Microdensitometric findings: Ca deficient group exhibited lower d. than control treatment. 4. Histopathol. findings: Control group exhibited dense matrix, thick cortex in both outer and inner circumferential lamellae, and well-developed Harversian system. In contrast, redn. of lacunae and expansion of marrow cavities were obsd. in Ca deficient group. Resorption and irregular distribution of trabecula were seen. Low Ca rats exhibited equiv. findings to that of control animals. 5. SEM findings: Regularly distributed collagen fibrils were seen in matrix formative area in control treatment. Lacunae and canaliculi ***opening*** were distinctly obsd. In contrast, resorptive area expanded and collagen fibrils were loosely arranged in Ca deficient treatment. Calcareous microdepositions and collagen fibrils were seen in the upper section of bone formative areas. Low Ca rats exhibited comparable findings to those of control animals. 6. Hematol. findings: No significant differences could be seen among the control and exptl. groups in serum level of Ca, phosphorus, ratio of Ca to phosphorus, sodium, potassium, and chloride. Ca deficient rats exhibited higher GOT and CPK level than the control animals. From the above results, it is suggested that bone loss can be well restored by dietary therapy, particularly in low Ca group. If Ca is sufficiently stored in bone tissues.

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L6 ANSWER 39 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN
AN 1996:453894 CAPLUS
DN 125:132697

TI Bone density changes after 1 year in periodontal lesions treated surgically with or without ePTFE membrane placement
AU Iversen, B.; Albandar, J. M.; Oeydna, J.; Gjermo, P.
CS Dental Faculty, University Oslo, Norway
SO Journal of Clinical Periodontology (1996), 23(6), 512-516
CODEN: JCPEDZ; ISSN: 0303-6979

PB Munksgaard
DT Journal
LA English
AB The present study was designed to quant. assess radiog. changes in ***alveolar*** ***bone*** d. in intrabony defects treated with expanded polytetrafluorethylene membranes (ePTFE) or by conventional flap surgery alone. 15 Patients with 2 periodontal defects of comparable morphol. which could be depicted on a single radiograph made up the test panel. Standardized radiographs of the periodontal defects were taken immediately prior to surgery and 12 mo later. The 2 defects were treated simultaneously using the modified Widman flap procedure and prepd. for membrane placement. Then one of the lesions was randomly assigned for treatment with the membrane. All radiographs and surgical procedures were managed by one person. The radiographs were assessed by another person according to a blind design. Periodontal defects treated with ePTFE membranes (test), and sites treated by conventional flap procedures (control) were then analyzed using a computerized image anal. program. In

8 patients, the test site outcome was better than the outcome in the control site. 6 Of the control sites indicated increased bone d., while 7 sites showed decreased values, and 2 sites were unchanged. The corresponding values from the test sites were 5, 6 and 4, resp. In the present controlled clin. study, the use of an ePTFE membrane to cover the ***opening*** of a vertical bone defects during periodontal surgery did not predictably increase the bone d. of the defects.

L6 ANSWER 40 OF 40 CAPLUS COPYRIGHT 2003 ACS on STN

AN 1987:521021 CAPLUS

DN 107:121021

TI Per mucosal dental implants of dense hydroxylapatite in prosthetic dentistry

AU De Putter, C.; De Lange, G. L.; De Groot, K.

CS ACTA Free Univ. Amsterdam, Amsterdam, 1007 MC, Neth.

SO Materials Science Monographs (1987), 39(Ceram. Clin. Appl.), 275-81

CODEN: MSMODP; ISSN: 0166-6010

DT Journal

LA English

AB To provide retention for prosthetic dental appliances per mucosal implants of hydroxylapatite were studied in an animal expt. Apparently, the implants can function in providing retention without undercut forms (as screws, blades, ***holes***) due to the bonding of ***alveolar*** ***bone*** to hydroxylapatite. Sealing of this bonding by development of a gingival attachment system with epithelial attachment and attachment of supra-bony connative tissue fibers is shown. Due to the poor fatigue properties of the material solid implants could not withstand the loading forces, so that the implants had to be strengthened. The method applied was prestressing, which appeared to be able to prevent fatigue fracture. Failure of implants caused minimal bone loss or no loss of bone at all, since the implants did not need any undercut form, reducing the amt. of "bone at risk" to a min. Fractured lower parts of solid implants were either removed and replaced (when indicated) or left in situ as submerged submucosal implants.

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---Logging off of STN---

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COST IN U.S. DOLLARS		SINCE FILE	TOTAL
	ENTRY	SESSION	
FULL ESTIMATED COST		128.66	129.08
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		SINCE FILE	
TOTAL	ENTRY	SESSION	
CA SUBSCRIBER PRICE		-5.21	-5.21

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